Notice of Allowability	Application No.	Applicant(s)	
	10/786,205	GEAGHAN ET AL.	
	Examiner	Art Unit	
	Nitin Patel	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *2/25/2004*.

2. ☒ The allowed claim(s) is/are *1-23*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date 6/28/2004
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Nitin Patel

REASON FOR ALLOWANCE

1. Claims 1-23 is allowed.

2. The following is an examiner's statement of reason for allowance:

Aroyan et al., (U.S.Patent No. 6,163,313) teaches an insulating region extends into and terminates in the overlapped resistive region from a resistive region of the resistive layer outside the overlapped resistive region; a first insulating region is disposed in the resistive layer to form a first boundry of the generally continuous resistive section. Subsequently and at a distance from the first insulting region essentially equating the dimension of the length, a second insulating region is disposed in the resistive layer to form a second boundary of the generally continuous resistive section such that current may be conducted through the generally continuous resistive section between the first and second insulating regions.

Aroyan (US 20030231169) shows a touch sensor includes a substrate with touch region and a series of resistor chin for creating electric fields across the touch region. The resistor chain having a plurality of conductive electrodes have that form overlap resistors. The touch sensor includes insulating regions between the touch region and the resistor chain. The insulating regions are separated by gaps to provide a plurality of conductive pathways to the touch region.

The prior art fails to teach or suggest a touch sensor comprising: an electrically resistive film covering a touch sensitive area; two or more substantially parallel polygonal rows of electrically conductive segments separated by gaps disposed on the resistive film and surrounding the touch sensitive area, each edge of each row having

one or more middle electrically conductive segments disposed between two end electrically conductive segments, a first middle conductive segment in one of the rows fully overlapping a second middle conductive segment in an adjacent row, the overlapping portions of the first and second middle conductive segments defining a full overlap region; and a first discrete electrically insulative segment disposed in the resistive film in the full overlap region to increase electrical resistance between the first and second middle conductive segments as claimed in claim 1.

The prior art fails to teach or suggest a touch sensor comprising: an electrically resistive film covering a touch sensitive area; two or more substantially parallel polygonal rows of discrete electrically conductive segments disposed on the resistive film and surrounding the touch sensitive area, **each edge of each row having one or more middle electrically conductive segments disposed between two end electrically conductive segments, a first middle conductive segment in one of the rows fully overlapping a second middle conductive segment in an adjacent row; and a first discrete electrically insulative segment disposed between the first middle conductive segment and the resistive film to increase electrical resistance between the first and second middle conductive segments** as claimed in claim 11.

The prior art fails to teach or suggest a touch sensor comprising: an electrically resistive film; and two substantially parallel rows of discrete conductive segments disposed on the resistive film; gaps separating adjacent discrete conductive segments in each row; **a first conductive segment in one row fully overlapping a second conductive segment in the other row, the overlap region between the first and**

second conductive segments defining a full overlap region; a first gap in one row overlapping a third conductive segment in the other row, the overlap region between the first gap and the third conductive segment defining a no overlap region; each of the full and no overlap regions including at least one discrete electrically insulative segment as claimed in claim 14.

The prior art fails to teach or suggest a touch sensor comprising: an electrically resistive film covering a touch sensitive area; a linearization pattern disposed on the resistive film peripheral to the touch sensitive area for linearizing an electric field in the touch sensitive area, the linearization pattern having multiple sides and configured to conduct a parallel electrical current and a perpendicular electrical current at a local region within a side of the linearization pattern, **the parallel current flowing in a direction parallel to the side of the linearization pattern at the local region, the perpendicular current flowing in a direction perpendicular to the side of the linearization pattern at the local region; and at least one discrete electrically insulative segment disposed within the local region, the insulative segment substantially affecting the perpendicular current for controlling a voltage distribution along the side of the linearization pattern without substantially affecting the parallel current** as claimed in claim 17.

The prior art fails to teach or suggest a touch sensor comprising: an electrically resistive film covering a touch sensitive area; a polygonal linearization pattern disposed on the resistive film peripheral to the touch sensitive area for linearizing an electric field in the touch sensitive area, the linearization pattern having multiple sides, and

configured to provide a parallel voltage gradient and a perpendicular voltage gradient in a local region within a side of the linearization pattern, **the parallel voltage gradient being in a direction parallel to the side of the linearization pattern at the local region, the perpendicular voltage gradient being in a direction perpendicular to the side of the linearization pattern at the local region; and at least one discrete electrically insulative segment disposed within the local region, the insulative segment substantially affecting the perpendicular voltage gradient for controlling a voltage distribution along the side of the linearization pattern without substantially affecting the parallel voltage** as claimed in claim 19.

The prior art fails to teach or suggest a touch sensor comprising: an electrically resistive film covering a touch sensitive area; two or more substantially parallel polygonal rows of electrically conductive segments separated by gaps disposed on the resistive film and surrounding the touch sensitive area, each edge of each row having one or more middle electrically conductive segments disposed between two end electrically conductive segments, **a first middle conductive segment in a first row fully overlapping a second middle conductive segment in a second row adjacent to the first row, the overlapping portions of the first and second middle conductive segments defining a full overlap region; a first gap in a third row overlapping a third conductive segment in a fourth row adjacent to the third row, the overlap region between the first gap and the third conductive segment defining a no overlap region; and means for increasing the electrical resistance of at least one of the full and no overlap regions, the electrical resistance in the full**

overlap region being measured between the first and second middle conductive segments, the electrical resistance in the no overlap region being measured between the first gap and the third conductive segment as claimed in claim 22.

3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nitin Patel whose telephone number is 571-272-7677. The examiner can normally be reached on 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin H. Shalwala can be reached on 571-272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nitin Patel
Examiner
Art Unit 2629

Nitin Patel